Editorial comment GKS

Just before its demise, the British social science weekly, New Society, published a short piece in which geography was portrayed as an 'academic imperialist' in 'Thatcherite Britain'. A new social science was being created, it was suggested, 'with the invasion of new geography, the new right, neo-liberalism and post-welfarism' (A. Caudrey, Winds of change', New Society, 29 April 1988). Aha, another 'new geography' to add to our historical collection and one that would seem to be as politically clued into an era as MacKinder's original 'new geography' in the age of imperialism. It is not surprising, therefore, that geography has found a place in the British government's core curriculum for schools leaving politics, economics and sociology on the sidelines.

What is this latest 'new geography'? In terms of British education planning we can get a clear hint from the controversy aroused by the initial proposals for the content of geography in the core curriculum. Geography, it seems, is a subject that deals pre-eminently with 'facts'. Hence theories and abstractions are relegated and geography returns to describing the world. This is, of course, becoming just as familiar to those of us working in higher education. Facts have gone to the top of the geographical agenda under the banner of GIS.

There can have been no previous 'new geography' that has so dominated the geographical labour market. On both sides of the Atlantic about half the advertisements for lecturers and assistant professors require expertise in geographical information systems. Let us see how this amazing technocratic turn fits into the recent history of our discipline.

Positivist geography's great revenge

At the height of the 1970s retreat from 'the quantitative revolution', Derek Gregory, in his influential *Ideology, Science and Human Geography* (Hutchinson, 1977), portrayed the quantifiers as latter-day Victorians. This was both a clever and cruel attack; clever because it moved the agenda towards philosophy, cruel because the great modernizers of geography were located in the past rather than in the future. As the heirs to nineteenth-century positivism, quantitative geographers were left with a discredited philosophy that they did not know they possessed!

With humanists discovering real people and the radicals arguing for real structures, quantitative geography was on the defensive throughout the 1970s. Both critiques agreed that 'spatial separatism' was not a viable programme for geography although they promoted different routes out of the locational *cul de sac*. On the philosophical terrain, therefore, new revolutions overturned the naive assumptions of the quantitative revolution. But was this the right terrain on which to fight the battle? With hindsight we can see that the quantifiers had one great advantage, the potential utility of their product beyond academia. It is on this practical terrain that the quantifiers were able to put aside the critiques and win the 1980s. Enter GIS.

One interpretation goes as follows. The original quantifiers of the 1960s were concerned to regenerate their discipline. They were creators of new knowledge based upon location

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theories. This was codified by Brian Berry in his 'geographical data matrix' which had places on one axis and descriptors of places on the other. Rows and columns could be combined to define regional and systematic geographies respectively. In contemporary parlance we may term them 'geographical knowledge systems'. What the current quantifiers have done is to convert this GKS into GIS. By retreating from knowledge to information they have by-passed the 1970s critiques. And, obviously, as geography's contributors to the 'age of information' they are most certainly no longer Victorians!

What does it mean to retreat from knowledge to information? Knowledge is about ideas, about putting ideas together into integrated systems of thought we call disciplines. Information is about facts, about separating out a particular feature of a situation and recording it as an autonomous observation. Hence disciplines are defined by the knowledge they produce and not by facts: a 'geographical fact' that is not linked to geographical knowledge (e.g. 'Test matches are no longer played in Dacca') is merely vernacular ('trivial pursuit') geography. The positivists' revenge has been to retreat to information and leave their knowledge problems—and their opponents—stranded on a foreign shore. But the result has been a return of the very worst sort of positivism, a most naive empiricism.

An empiricism that is anti-geography

GIS is geography's own little bit of the 'high-tech' revolution and has suffered accordingly with the seemingly endemic high-tech disease of mega-hype. The new quantifiers are fully paid up members of Theodore Roszak's *The Cult of Information* (Lutterworth, 1986). Perhaps the key characteristic of this cult is that its members spend much of their time searching for problems for which they have the means to find solutions. The merging of this technology-led mentality with the propensity of geography to study anything that is 'spatial' (i.e. everything) produces the imperialism of the new geography that *New Society* has complained about.

GIS is a technological package that can treat any systematic collection of facts that are individually identified spatially. These facts may be medical statistics, remote-sensing images, crime files, land-use data, population registers or whatever. In terms of the package, spatial patterns can be produced irrespective of what the information is about. It is at the stage of interpreting such patterns that the nature of a GIS exercise reveals itself. If the 'new geography' merely provides the pattern for other disciplines to interpret, then it is divorcing itself from processes and not producing any geographical knowledge. Such quantifiers can produce a maverick geography dealing with crime one week, bronchitis the next, and so on. To the degree that such activity occurs in a geography department it can be designated antigeography. It services other disciplines, it may be good for 'inter-disciplinary studies', but it leaves geography intellectually sterile—high-tech trivial pursuit.

And so we return to the old pattern-process debate which so plagued the first generation of quantifiers. There will always be a few mavericks but I have great confidence that the current cohort of quantifiers will no more want to leave processes to others than did their predecessors. Obviously GIS should not be opposed to GKS, both need each other. Quite simply, after the initial technological flush, nobody can sustain an intellectual career on patterns alone. Now, how can GIS be of use in our particular GKS, political geography?

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